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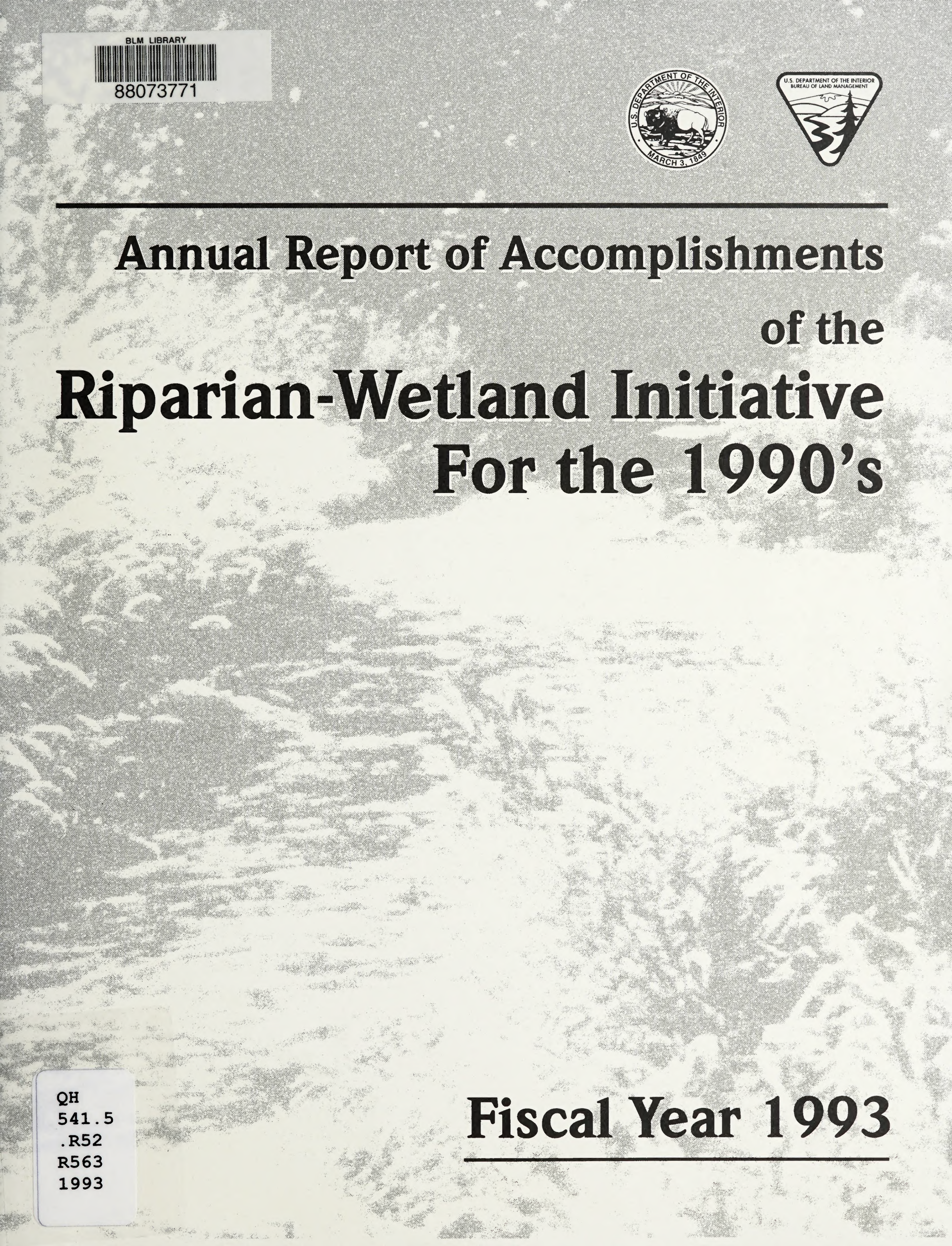

Annual Report of Accomplishments of the Riparian-Wetland Initiative For the 1990's

Fiscal Year 1993

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U.S. Department of the Interior
Mission Statement

As the Nation's principal conservation agency, the U.S. Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, and preserving the environmental and cultural values of our national parks and historic places.

The Interior Department also assesses our mineral resources and works to assure that their development is in the best interest of all the people.

Additionally, the Department has a major responsibility for American Indian reservation communities and for people who live in the Island Territories under United States administration.

After many years of discussing a "Home Department," Congress in 1849 decided that creation of a Department of the Interior had become necessary to administer the vastly expanded land holdings acquired by the Federal Government through the Louisiana Purchase of 1803, the Mexican war of 1846-48 and the 1846 treaty with Great Britain by which the United States acquired the Oregon Territory. In addition to the General Land Office, custodian of these lands, the new Interior Department was given functional responsibility for the Office of Indian Affairs, Pension Office, Patent Office, and several smaller agencies including the Census of the United States.

Over the many years since that time, other duties have been added and spun off, and the Department of the Interior's role has changed from that of a general housekeeper for the Federal Government to that of custodian of its natural resources.

The Department manages more than 440 million acres of federal lands, including some 360 national parks, about 500 wildlife refuges and vast areas of multiple use lands. Interior Department agencies include the National Park Service, U.S. Fish and Wildlife Service, National Biological Survey, Bureau of Land Management, Minerals Management Service, Office of Surface Mining Reclamation and Enforcement, U.S. Geological Survey, Bureau of Reclamation, Bureau of Mines, Bureau of Indian Affairs and Office of Territorial and International Affairs.

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Introduction

This is the Third Annual Accomplishments Report of the *Riparian-Wetland Initiative for the 1990's,* a blueprint for managing and restoring riparian-wetland areas that cover 23.2 million acres of BLM lands.

The principal goal of the initiative is to restore and maintain riparian-wetland areas so that at least 75 percent are in proper functioning condition by 1997. The initiative, which complements Rangeland Reform '94 and other land management initiatives of President Clinton and Secretary of the Interior Bruce Babbitt, takes an interdisciplinary approach to the management of riparian-wetland areas.

This report highlights the BLM's major accomplishments in the program during Fiscal Year 1993. It gives examples of the BLM's commitment to protecting riparian-wetland areas, which are environmentally and economically valuable. It also shows how the agency is working to attain the stewardship and wetlands conservation goals of the President and the Secretary.

Estimated Riparian-Wetland Acreage by State
(most recent data available)

State	BLM-Administered Land (acres)	Riparian-Wetland (acres)	Riparian-Wetland Area (percent)	Riparian Stream (miles)
Alaska	89,712,202	22,200,500	24.75	132,700
Arizona	14,254,167	50,000	0.35	1,400
California	15,432,887	139,200	0.81	3,500
Colorado	8,314,757	66,900	0.81	4,320
Eastern States	22,573	4,300	19.0	10
Idaho	11,861,686	57.900	0.49	4,930
Montana	8,077,253	118,000	1.40	9,000
Nevada	47,966,217	38,100	0.08	2,230
New Mexico	12,878,359	63,850	0.50	380
Oregon/ Washington	16,054,587	238,000	1.48	7,640
Utah	22,147,582	149,000	0.67	4,560
Wyoming	18,398,385	89,600	0.49	7,155
Total	**266,943,592**	**23,215,350**	**8.70**	**177,825**

Importance of Riparian-Wetland Areas

Riparian areas are lands adjacent to creeks, streams, lakes, and rivers. They are sometimes called "green ribbons" because the vegetation on waterway banks forms a ribbon-like pattern when seen from the air.

These areas, containing scarce water and vegetation in the otherwise arid Western United States, are important to fish and wildlife species, as well as to livestock. Since they filter the water flowing through them, riparian-wetland areas can affect the health of an entire watershed.

Wetlands are generally defined as areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support — and which, under normal circumstances, do support — vegetation that is typically adapted for life in saturated soil. Wetlands include bogs, marshes, shallows, muskegs, wet meadows, estuaries, and riparian areas.

Riparian areas and wetlands are linked for purposes of reporting the BLM's progress in getting these areas into proper functioning condition.

Proper Functioning Condition

A riparian-wetland area is healthy and functioning when adequate vegetation, landform or large woody debris is present to dissipate energy associated with high water flow. A healthy riparian-wetland area exhibits certain characteristics, such as:

- Purifying water by removing sediments as water moves through;
- Reducing the risk of flood damage;
- Reducing streambank erosion;
- Increasing available water by holding water in stream banks and aquifers;
- Maintaining instream flows and streambanks;
- Increasing ground water supplies;
- Supporting a diversity of wildlife and plant species;
- Maintaining habitat for healthy fish populations;
- Providing water, forage and shade for livestock;
- And creating opportunities for recreationists to fish, camp, picnic and relax.

Condition of Riparian-Wetland Areas

The table below depicts the condition of riparian-wetland areas on BLM-managed lands for the 11 Western States and Alaska in fiscal year 1993. Inventories planned for the 55 percent of riparian-wetland areas now in the "unknown" category are expected to show similar distributions in the proper functioning, functioning-at-risk and non-functional categories.

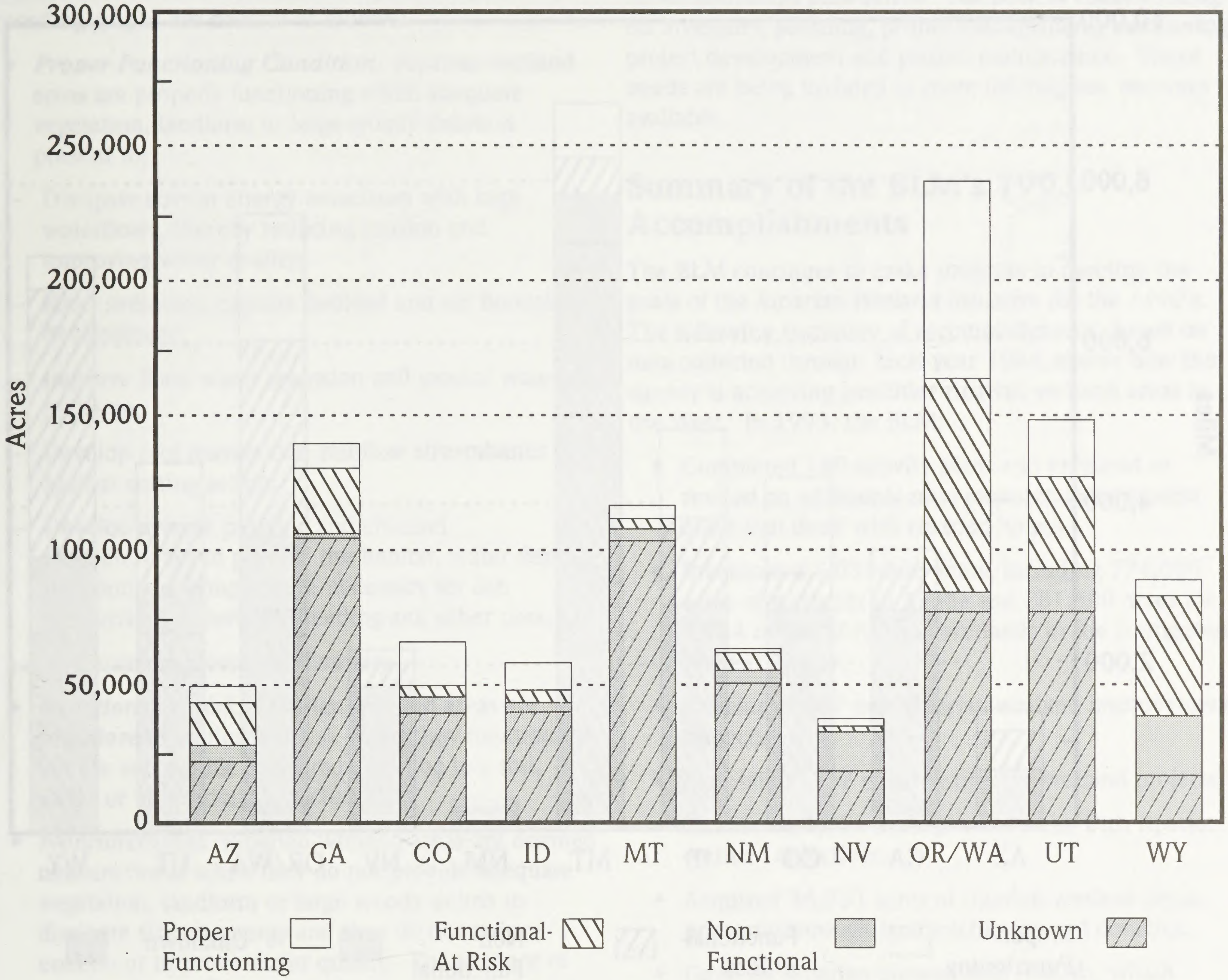
Condition of Riparian-Wetland Areas by Class in 1993
(including unknown areas)

Condition Class	Western States	Alaska	Total BLM
Proper functioning functioning condition	15%	67%	65%
Functioning-at-risk (susceptible to degradation)	21%	1%	1%
Non-functional	9%	0%	1%
Unknown	55%	32%	33%

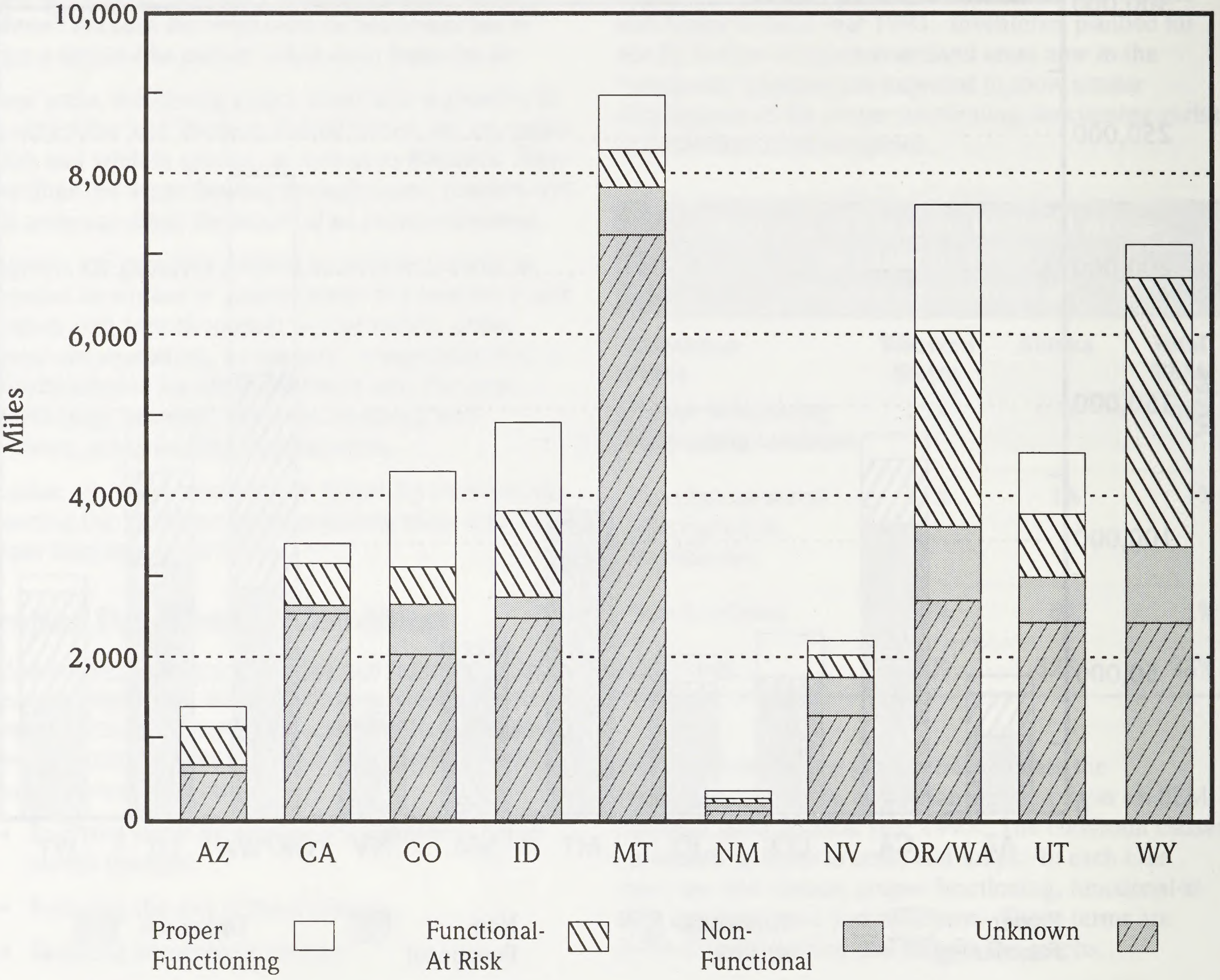
What follows are two graphs that estimate the functioning condition of riparian-wetland areas on BLM-managed lands in fiscal year 1993. The condition classes are shown by State in acres and miles. In each case there are four classes: proper functioning, functional-at-risk, non-functional and unknown. Those terms are defined in the section that follows the graphs.

Condition of Riparian-Wetland Areas (Acres) in the Western States

FY 1993



Condition of Riparian-Wetland Areas (Miles) in the Western States
FY 1993



Definition of Condition Classes

The functioning condition of riparian-wetland areas is determined by an interaction of geology, soil, water and vegetation. The condition classes depicted in the preceding graphs are defined as follows:

- ***Proper Functioning Condition.*** Riparian-wetland areas are properly functioning when adequate vegetation, landform or large woody debris is present to:

– Dissipate stream energy associated with high waterflows, thereby reducing erosion and improving water quality;

– Filter sediment, capture bedload and aid floodplain development;

– Improve flood-water retention and ground water recharge;

– Develop root masses that stabilize streambanks against cutting action;

– Develop diverse ponding and channel characteristics to provide the habitat, water depth, duration and temperature necessary for fish production, waterfowl breeding and other uses;

– And support greater biodiversity.

- ***Functional-at-risk.*** Riparian-wetland areas are considered functional-at-risk when they function but are susceptible to degradation due to a soil, water or vegetation characteristic.

- ***Nonfunctional.*** Riparian-wetland areas are deemed nonfunctional when they do not provide adequate vegetation, landform or large woody debris to dissipate stream energy and thus do not reduce erosion or improve water quality. The absence of certain physical characteristics, such as a floodplain, is an indicator of a nonfunctional riparian-wetland area.

- ***Unknown.*** Riparian-wetland areas in this category are those whose functioning condition has not been determined because the BLM lacks sufficient information about them.

Future Management of Riparian-Wetland Areas

As the BLM works to achieve proper functioning condition on riparian-wetland areas, the agency is developing a bureau-wide standard for monitoring and reporting improvements in condition so it can better assess and document progress. In 1989, each State prepared individual strategies that identified optimal funding needs for riparian management activities for fiscal years 1991 to 1995. Other needs were identified independently in *Waterfowl Habitat Management on Public Lands,* prepared as part of a *Fish & Wildlife 2000* national strategy plan series. The BLM is concentrating on inventory, planning, proper management, monitoring, project development and project maintenance. These needs are being updated as more information becomes available.

Summary of the BLM's 1993 Accomplishments

The BLM continues to make progress in meeting the goals of the *Riparian-Wetland Initiative for the 1990's.* The following summary of accomplishments, based on data collected through fiscal year 1993, shows how the agency is achieving healthier riparian-wetland areas in the West. In 1993, the BLM:

- Completed 180 activity plans and prepared or revised an additional nine resource management plans that dealt with riparian issues.
- Inventoried 1,055,300 acres, including 774,000 acres of wetlands in Alaska and 281,300 acres (or 1,944 miles) of riparian-wetlands in the contiguous Western States.
- Developed 567 new riparian-wetland improvement projects.
- Maintained 752 existing riparian-wetland projects.
- Monitored 1,096 management plans with riparian-wetland objectives.
- Acquired 36,833 acres of riparian-wetland areas, primarily through land exchanges and donation.
- Gave six Riparian Stewardship Awards, which recognize those who help the BLM carry out the *Riparian-Wetland Initiative for the 1990s.*
- Conducted 108 instream flow assessments to determine the water quantity needed to support healthy riparian-wetland areas.
- Managed 145 areas with riparian features through partnerships, primarily with State and private cooperators.
- Completed numerous training, public outreach and research efforts to promote awareness of the importance of healthy riparian-wetland areas.

State-by-State Statistical Summary of the BLM's 1993 Accomplishments

Riparian-Wetland Inventory

Riparian-Wetland Inventory (by acres)

Alaska	774,000
Arizona	3,000
California	10,000
Colorado	48,500
Idaho	4,100
Montana	85,000
Nevada	12,700
New Mexico	6,400
Oregon/Wash.	28,000
Utah	9,600
Wyoming	74,000
Total:	**1,055,300**

Riparian Inventory (by miles)

Alaska	375
Arizona	—
California	2
Colorado	543
Idaho	537
Montana	227
Nevada	—
New Mexico	43
Oregon/Wash.	37
Utah	180
Wyoming	—
Total:	**1,944**

Resource Activity Plans

Alaska	2
Arizona	19
California	0
Colorado	12
Idaho	34
Montana	38
Nevada	10
New Mexico	3
Oregon/Wash.	43
Utah	10
Wyoming	9
Total:	**180**

Resource Management Plans

Alaska	0
Arizona	0
California	0
Colorado	1
Idaho	0
Montana	0
Nevada	2
New Mexico	0
Oregon/Wash.	5
Utah	0
Wyoming	1
Total:	**9**

Activity Plans Monitored

Alaska	0
Arizona	94
California	1
Colorado	92
Idaho	65
Montana	129
Nevada	113
New Mexico	7
Oregon/Wash.	440
Utah	20
Wyoming	135
Total:	**1,096**

State-by-State Statistical Summary of the BLM's 1993 Accomplishments

Riparian-Wetland Projects

New

Alaska	1
Arizona	14
California	19
Colorado	97
Idaho	53
Montana	90
Nevada	54
New Mexico	32
Oregon/Wash.	83
Utah	56
Wyoming	68
Total:	**567**

Riparian-Wetland Acquisitions, Exchanges or Donations (by acres)

Alaska	0
Arizona	1,906
California	5,000
Colorado	210
Idaho	3,083
Montana	97
Nevada	5,000
New Mexico	1,069
Oregon/Wash.	20,184
Utah	244
Wyoming	40
Total:	**36,833**

Partnerships (primarily with State agencies and private groups)

Alaska	1
Arizona	2
California	9
Colorado	15
Idaho	20
Montana	5
Nevada	15
New Mexico	10
Oregon/Wash.	39
Utah	13
Wyoming	16
Total:	**145**

Maintained

Alaska	0
Arizona	6
California	0
Colorado	31
Idaho	202
Montana	78
Nevada	109
New Mexico	30
Oregon/Wash.	70
Utah	67
Wyoming	159
Total:	**752**

Riparian Stewardship Awards (number of awards given by each BLM State Office)

Alaska	0
Arizona	1
California	0
Colorado	1
Idaho	0
Montana	2
Nevada	0
New Mexico	0
Oregon/Wash.	1
Utah	0
Wyoming	1
Total:	**6**

Instream Flow Studies

Alaska	0
Arizona	10
California	0
Colorado	7
Idaho	14
Montana	1
Nevada	1
New Mexico	0
Oregon/Wash.	74
Utah	1
Wyoming	0
Total:	**108**

Goals and Strategies

Progress in Meeting Goals in 1993

In fiscal year 1993, the BLM spent about $12 million on riparian-wetland area management, which represents a 20 percent increase over the previous year. But that figure falls short of what is needed optimally for a bureau-wide effort in reaching the goals of the *Riparian-Wetland Initiative for the 1990's.* Those goals, and the BLM's strategies for reaching those goals, are described below.

Goal 1

The BLM is working to restore and maintain riparian-wetland areas so that at least 75 percent are in proper functioning condition by 1997. Overall, the agency is working to get riparian zones into an advanced ecological state.

Strategies are implemented in various stages. For example, in those areas where plans are completed, project development is underway. In other areas, inventories are being conducted to gather baseline data, which facilitates planning and project design. Where plans have been implemented, monitoring is being conducted to determine the extent to which riparian-wetland management objectives are being met. To move toward the restoration and maintenance goal, several strategies were adopted.

Inventory and Classification

The BLM is compiling and evaluating baseline information on riparian-wetland areas to determine their ecological status, potential and condition. Please see **Appendix I** for numerous examples.

Land Use and Activity Plan Preparation or Revision

The BLM has been developing or revising management plans that involve riparian-wetland areas or values.

- In 1993, the agency prepared or revised 180 activity plans that addressed riparian-wetland issues (e.g., Allotment Management Plans, Watershed Management Plans, Habitat Management Plans and Coordinated Resource Management Plans).

Activity plans included land use-plan objectives and provided appropriate management prescriptions — such as livestock grazing, surface protection and fish and wildlife habitat — related to riparian-wetland area management.

- The BLM completed new or revised existing Resource Management Plans on five resource areas in Colorado, Nevada and Wyoming. These plans addressed riparian-wetland related resource conflicts, complementary relationships and opportunities for improvement. In doing this, the agency developed the best mix of multiple uses that were consistent with, for example, a State's Nonpoint Source Management Plans, Endangered Species Recovery Plans, Areas of Critical Environmental Concern and the biodiversity-ecosystem management concepts.

Project Development and Maintenance

The BLM initiates and maintains projects to create, improve or maintain riparian-wetland ecological conditions. In 1993, the agency carried out 494 new on-site projects to restore or improve riparian-wetland areas. These projects included water developments; fence construction; tree, shrub, and grass plantings; and prescribed burning.

Instream structures were required in some areas where other restoration measures or management prescriptions have been inadequate to achieve the desired level of improvement. While attempting to rely on the natural riparian-wetland function, the BLM had to make some major structural improvements so that certain riparian-wetland systems could maintain themselves and become stable for the long-term. Some areas requiring structural improvements are shown below:

Structural Improvements

State	Project Area(s)
Alaska	Nome Creek
California	Trinity River
Colorado	Hay Canyon, Deer Creek, Upper Dominquez Creek, Prince Creek, Woods Gulch
New Mexico	Upper Rio Puerco, Placitas Arroyo, Three Rivers, Horse Mountain, Fort Stanton, Overflow Wetlands
Oregon	Krumbo Creek, Wickiup Creek, Grassy Butte
Utah	Blue Springs Marsh, Patterson Creek, Pariette Wetlands, Sweetwater Creek, South Canyon
Washington	Goose Butte Allotment, Lakeview Ranch, Bachelor Prairie, Wilson Creek
Wyoming	Littlefield, Pete, Loco, Pine Grove, Red, and Currant Creeks; Green and Table Mountain areas; Bighorn River tributary; Wheat Creek Meadows; Thomas Fork; Rock Creek ACEC; Ryegrass Exclosure

In 1993, the BLM, cooperators, volunteers, land users, and various interest groups maintained 689 existing riparian-wetland projects.

Monitoring

The BLM monitors riparian-wetland areas to determine whether management actions are meeting specific objectives. In 1993, the agency monitored management actions on 1,156 activity plans or sites.

When riparian objectives are not being met, the BLM revises management prescriptions and resumes monitoring to measure progress toward management goals.

The *Riparian-Wetland Initiative for the 1990's* includes a directive to monitor water quality and to implement Best Management Practices (BMP's) to meet State and national water quality objectives. Please see **Appendix II** for details on monitoring progress.

Goal 2

The BLM protects riparian-wetland areas and associated uplands through proper land management and by avoiding or mitigating negative impacts. The objective is to protect, acquire and expand key areas to ensure their efficient management and to bring about their maximum public benefit.

In order to protect or expand these unique areas, the agency is implementing several strategies, which are described below.

Protection and Mitigation

The BLM avoids or mitigates the negative effects of surface disturbance activities to the maximum extent possible. Compensatory mitigation, such as creating wetlands, is being applied where feasible. Protective fencing is also being used where necessary. For site-specific protection and mitigation examples, please see **Appendix III.**

Special Designations

The BLM identifies critical or unique riparian-wetland areas that would benefit from special designation through land-use planning or other processes.

Types of special designations are Quality Management Areas (QMA's), National Riparian Conservation Areas, Areas of Critical Environmental Concern (ACEC), Research Natural Areas (RNA's) and Wilderness Study Area (WSA's).

Please see **Appendix IV** for a list of riparian areas that were designated for special management emphasis in 1993.

Water Rights Assessments

Following the procedural requirements of various State laws, the BLM obtains on a case-by-case basis the rights or cooperative agreements for water needed to sustain riparian-wetland areas and their associated uses.

In 1993, the agency conducted many site-specific studies to determine water amounts, including instream flows, that are needed to support healthy riparian-wetland areas. Please see **Appendix V** for examples.

Acquisition and Expansion

The BLM acquires riparian-wetland areas through exchanges, donations or purchases, especially in areas adjacent to Waterfowl Habitat Management Areas or in areas that are critical for threatened and endangered species. For details on key riparian-wetland areas acquired in 1993, please see **Appendix VI.**

Watershed Approach

The BLM takes a watershed approach to riparian-wetland management that, whenever possible, focuses on the entire watershed and involves all affected landowners.

Using the biodiversity and ecosystem management concepts, the agency manages riparian-wetland areas in a manner that accomodates multiple uses. In certain instances, the BLM has to restrict some uses to achieve site-specific objectives. Please see **Appendix VII** for examples of the BLM's watershed approach.

Goal 3

The BLM carries out a multifaceted riparian-wetland information and outreach program that includes training and research. The objective is to raise awareness and understanding of the importance of healthy riparian-wetland areas.

The BLM continues to expand training to make sure it has the technical and management skills needed for planning and program implementation. The BLM makes this training available to other government agencies and to the public.

A state-of-the-art training course titled "Coordinated Riparian Area Management," which the BLM had held since 1989, was restructured in 1993 and renamed "Applied Riparian Management." The training was conducted in the Montrose Colorado District, with a field exercise on Roubideau Creek. BLM encourages participation by various Federal and State agency personnel, ranchers, conservationists and user groups.

In addition, the BLM held the course "Riparian-Wetland Ecological Site Classification" in the summer of 1993.

This course took an interdisciplinary team approach to the identification and description of existing resource conditions. The training locations are shown below:

Riparian-Wetland Ecological Site Training

State	Location	Field Exercise Location
California	Bakersfield	Caliente Creek
Wyoming	Worland	Fifteen Mile Creek

The BLM also conducted, sponsored or co-sponsored numerous training sesssions, workshops and conferences. Please see **Appendix VIII** for details.

Public Outreach

As the BLM, the academic community and other interested parties disseminate information about riparian-wetland areas, the public is becoming more aware of the value of these lands.

In 1993, the BLM worked to create a greater understanding of and appreciation for riparian-wetland areas among land managers, business and community leaders and the general public. The agency expanded its public outreach program through media contact and coverage, brochures, audio-visual exhibits, videos and teaching material. The material was presented at workshops, conferences and schools, as noted in **Appendix IX.**

Showcase Areas and Awards

The BLM continues to showcase riparian-wetland areas where proper management is creating a variety of benefits. The agency also honors individuals or groups that have made outstanding contributions in helping the BLM reach its riparian-wetland management objectives.

Riparian Showcases

The agency has established showcase areas in each BLM State to demonstrate that well-managed riparian areas can produce multiple-use benefits while remaining healthy. Showcase and demonstration areas are also being used for education and scientific purposes. The most recently designated showcase areas are shown in the following table:

Showcase Areas Established in 1993

State	Office	Showcase Area
Montana	Lewistown	Hole-In-The-Wall, Sheepshed Coulee and Iron City Island
New Mexico	Farmington	Pump Canyon
Nevada	Elko	Bruneau River
Oregon	Salem	Baker Creek and East Creek
Washington	Spokane	Fishtrap Ranch

The BLM's Riparian Stewardship Awards

The BLM initiated the Riparian Stewardship Award program to recognize private landowners, resource users, public agencies and private organizations that have made special contributions to riparian stewardship on public lands. The 1993 winners included:

- Hugh Peterson of Arizona for his enthusiasm in working with Federal and State agencies to improve riparian areas through better livestock management on the Silverstrike Allotment, located within the Fort Bowie National Historic Site.
- Trout Unlimited's Grand Valley Anglers Chapter in Colorado for its dedication to riparian enhancement on the Trapper Creek watershed.
- Robert Reukauf of Terry, Montana, for improving riparian-wetland areas, enhancing habitat for big game and upland game birds and for improving forage through effective management of livestock on his allotment.
- Bob Budd, Executive Director, Wyoming Stockgrowers Association, for his work in scheduling, coordinating and hosting six riparian workshops for landowners and land managers throughout Wyoming.

Riparian Awards to BLM

The Western Division of the American Fisheries Society sponsors an annual award for excellence in on-site riparian management. The award recognizes the best BLM and Forest Service work in restoring riparian areas.

The BLM's Barstow (California) and Dillon (Montana) Resource Areas, its Rawlins (Wyoming) District and its Nevada State Office each received plaques for their outstanding management of riparian areas.

Goal 4

Riparian-wetland ecosystems, which neither begin nor end at land ownership boundaries, require effective and cooperative management by all affected parties. The BLM is working to form new and maintain existing partnerships to implement the Riparian-Wetland Initiative for the 1990's. *The goal is to supplement and accelerate the agency's work by using non-Federal funds and labor to complete high-priority projects.*

Funding and Volunteer Opportunities

The BLM undertakes high-priority restoration projects through joint-funding ventures, such as the Challenge Cost Share Funding Program. Through its Volunteer Program, the agency seeks and receives assistance from individuals, public land users and other groups concerned about riparian-wetland management. Volunteers not only help the BLM complete projects and perform required maintenance, but also raise public awareness about the value of riparian-wetland areas.

Please see **Appendix X** for examples of land users and groups that volunteered time and labor in 1993 to help the BLM carry out riparian-wetland projects.

Partnerships

The BLM is working with a variety of private groups and governmental agencies to achieve riparian-wetland management objectives. Please see **Appendix XI** for details.

Standardization and Integration

To carry out its land management mission more effectively, the BLM coordinates its riparian-related work with other BLM initiatives and programs. The agency also integrates its *Riparian-Wetland Initiative for the 1990's* into complementary BLM initiatives, such as *Fish and Wildlife 2000* and *Recreation 2000*, along with other Federal programs.

Please see **Appendix XII** for examples of how the BLM is coordinating its management of riparian-wetland areas with other Federal and State initiatives or projects.

Technical Guidelines

The BLM's Service Center in Denver took the lead in the agency's development and implementation of standardized riparian-wetland guidelines. The guidelines relate to inventory, classification, evaluation, management, monitoring and data handling. Recently-released riparian technical references are titled "Greenline Riparian-Wetland Monitoring" and "Process for Assessing Proper Functioning Condition." Also, a BLM staffer in Idaho completed an assignment with the Idaho Division of Environmental Quality that dealt with the development of a technical riparian document. The document, called "Procedures for Classifying, Monitoring, and Evaluating Stream/Riparian Vegetation on Idaho Rangeland Streams," provides standards and guidelines for monitoring vegetation on stream reaches.

Interdisciplinary and Interagency Coordination

The BLM encourages Federal, State and local interdisciplinary teams to be involved in all aspects of riparian-wetland management. Range conservationists, soil scientists, hydrologists, wildlife biologists, fishery biologists, recreation planners, ecologists, natural resource specialists and others participate in management activities, as described in **Appendix XIII.**

Conclusion

The *Riparian-Wetland Initiative for the 1990's* calls for the BLM to restore at least 75 percent of the riparian-wetland areas on public lands to proper functioning condition by 1997. Meeting this national goal and responding to the other challenges described in this report will require a major commitment from Congress, the BLM and the BLM's partners. With that cooperative effort, the BLM can achieve healthy conditions on riparian-wetland areas throughout the West.

APPENDICES

APPENDIX I: BASELINE INFORMATION COLLECTION

- In Alaska's Anchorage District, 774,000 acres were extensively inventoried and evaluated for wetland values in a continuing Challenge Cost-Share funding effort with Ducks Unlimited. The Glennallen District, in cooperation with the Soil Conservation Service, completed an intensive inventory of soils and riparian resources on about 24,000 acres in the Gulkana Wild and Scenic River corridor.
- In Arizona, intensive ecological site inventories were completed on approximately 3,000 acres of riparian-wetlands to assess ecological condition, establish site-specific objectives, prepare activity plans and identify restoration measures.
- The Eagle Lake Resource Area in California completed 10,000 acres of extensive inventory to determine priorities for an intensive inventory and classification of riparian areas. With the assistance of local volunteers, the Desert District inventoried over 50 acres of riparian habitat on more than 10 riparian sites in the East Canyons area.
- In Colorado, the BLM completed intensive inventories on nearly 130 miles of riparian streams to determine priority areas for future management actions. More than 830 miles of riparian and stream inventory data are being entered into the Riparian Aquatic Inventory Data Summary (RAIDS) automated data base. The BLM evaluated about 2,500 miles to determine whether they were in proper functioning condition. The agency also classified 45,000 watershed acres using the Ecological Site Inventory method.
- Using interdisciplinary teams, the Coeur d'Alene, Salmon, and Burley Districts in Idaho completed 164 miles of intensive riparian stream inventory. The Boise, Idaho Falls, Shoshone, and Coeur d'Alene Districts completed 391 miles of extensive riparian stream inventory. Also, the Boise District completed an additional 18 miles of intensive vegetation classification on riparian areas.
- The BLM in Idaho continued to make low-level infrared aerial photographs of streams to provide the basis for inventory and classification of riparian areas. The aerial photography in 1993 was taken on 310 stream miles in the Boise, Coeur d'Alene, Salmon, Idaho Falls and Burley Districts.
- In Montana, the BLM completed more than 200 miles of intensive riparian-wetland inventories, with information on hydrologic condition, ecological status and functioning condition. The inventory procedures followed were developed in cooperation with the Montana Riparian Association and have been adopted by other BLM State Offices, the Bureau of Reclamation, the U.S. Fish and Wildlife Service, the Bureau of Indian Affairs and Indian tribes.
- In New Mexico, 6,435 acres of intensive riparian inventories were done on areas in the Taos and Socorro Resource Areas. A playa lake inventory was initiated in the Roswell District as a result of the New Mexico Natural Heritage Program's cost-share agreement. Also, the Albuquerque District completed 18 miles of extensive inventory along the Rio Puerco River.
- In Nevada, the BLM completed a 13,000-acre inventory. The work included a coordinated inventory and classification of more than 25 miles of the Bruneau River as part of a continuing partnership with private groups; nine miles of inventory as part of the Virgin River Instream Flow Project; and nine miles of intensive ecological site inventory as part of an interagency demonstration with the Soil Conservation Service. In addition, the Carson City and Las Vegas Districts finished determining functional condition for all stream reaches.
- In Oregon and Washington, the BLM inventoried 222 miles of riparian streams and 15,200 acres of wetland areas in order to set management priorities and identify restoration measures.
- In Utah, the Bureau completed 9,600 acres of extensive riparian-wetland inventory to assist management officials in setting resource objectives. In addition, about 50 miles of the Virgin River were intensively inventoried with the help of Utah State University, the Utah Division of Wildlife Resources and volunteers.
- With assistance from Wyoming Game and Fish and the U.S. Fish and Wildlife Service, the BLM completed a National Wetlands Inventory on 20,000 acres of wetlands in Wyoming.
- Also in Wyoming, the Lander, Great Divide, Platte River, and Pinedale Resource Areas completed intensive inventories on 24,840 acres and 85 miles of critical riparian and wetland habitat using interdisciplinary teams. More than 8,850 acres and 500 miles of riparian and stream inventory data were updated or entered into the RAIDS automated data base in the Worland District.

APPENDIX II: MONITORING PROGRESS

- In Arizona, the BLM is evaluating over 360 riparian sites to determine instream flow needs, riparian ecological status and the effectiveness of livestock grazing management. In addition, the Phoenix District is monitoring water quality on Peoples Creek and the Safford District is doing the same on Bonita Creek to ensure the maintenance of the Unique Waters Designation.
- The Eagle Lake Resource Area in California expanded three spring meadow areas as a result of meeting wetland management objectives and using effective enhancement practices.
- In Colorado, the BLM intensified its riparian-wetland monitoring efforts in 1993, with over 90 activity plans being monitored by an interdisciplinary team to determine the extent to which management objectives were being met and the effectiveness of restoration measures.
- In Idaho, the Boise, Burley, Coeur d'Alene, Salmon and Idaho Falls Districts are monitoring water quality at more than 380 sites to determine riparian function and responses to riparian management on "stream segments of concern," as designated by the State of Idaho.
- At least one water quality monitoring site has been established in each of BLM's 12 resource areas in Montana. In addition, over 200 activity plans were monitored to determine if riparian-wetland objectives were being achieved.
- In New Mexico, monitoring station data was collected in the Rio Puerco, Gila Lower Box, Percha Creek Rio Salado, Fort Stanton, Overflow Wetlands, Carlsbad and Pump Canyon areas.
- In Nevada, the Elko and Carson City Districts are monitoring water quality on nine streams and a campground to determine responses to riparian management.
- In Oregon, the Lakeview District is working with the Oregon Department of Environmental Quality to develop a guide for BMP's and designing restoration practices to ensure the protection of riparian-wetland values. The Salem District is working with the Yamhill Soil and Water Conservation District on the Baker Creek Watershed Restoration and Enhancement Project to monitor the effectiveness of landslide stabilization practices as riparian restoration measures.
- Also in Oregon and Washington, the BLM is conducting water quality studies at more than 440 sites, many of which are in the Columbia River Basin to ensure compliance with State and national water quality standards.
- In cooperation with the Utah Division of Water Quality, the BLM monitored over 160 riparian-wetland sites in Utah for water quality improvement .
- In Wyoming, 93 riparian-wetland areas are being monitored for water quality to determine if management objectives are being met.

APPENDIX III: PROTECTION AND MITIGATION

- The BLM in California worked with various conservation groups and land owners to implement protective measures for establishing native vegetation on the American River, the Bodie Moutain allotment, Lower Smoke Creek, Wyman Creek, Lower East Fork, Honeydew Creek and Griswold Creek.
- In Colorado, the BLM worked with oil and gas companies to minimize adverse impacts in riparian-wetland areas. The cooperating parties developed mitigation measures and applied compensatory actions in the Craig, Montrose and Grand Junction Districts.
- In Idaho, the Boise District constructed protective fences in the Dautrich Preserve and along the North Fork of the Payette River and the East Fork of the Bruneau River. The Burley District provided protection measures on the Hawkins Reservoir area. The Idaho Falls District constructed protective fences along Birch and Summit Creeks and in the Elgin Lakes area. In addition, the Boise District completed an off-site water development to mitigate livestock use along Cedar Creek.
- To restore riparian values, the BLM in New Mexico constructed protective fences in the Rio Puerco, Rio Truchas, Lower Gila Box and Pump Canyon areas.
- In Utah, the BLM's Salt Lake City District constructed a protective fence in the Horseshoe Springs prime wetland area to enhance over 300 acres of waterfowl habitat. The Richfield and Vernal Districts constructed protective fences in areas adjacent to eight springs to enhance wetland values. Also, the Vernal District constructed a protective fence along the Green River.
- In Wyoming, the BLM's Lander, Great Divide, and Green River Resource Areas are managing key riparian areas on more than 1,000 acres by constructing protective fences to restore critical values.

Protective stipulations are incorporated in land-use authorizations and contracts to make sure that site-specific riparian-wetland management objectives are met. To ensure compliance with the Section 404 of the Clean Water Act, the BLM coordinates permits with the Army Corps of Engineers, the Environmental Protection Agency and the Fish and Wildlife Service, among other agencies.

In 1993, the BLM ensured compliance with mitigation measures for hundreds of surface- disturbing activities — such as road building, pipeline construction, mineral exploration or development and recreation activities. Monitoring these activities to determine their success in mitigating impacts required several adjustments in land-use activities. For example:

- In Utah, all proposed actions or activities are reviewed for potential impacts to riparian-wetland values and necessary mitigation measures are carried out to maintain those values.
- The BLM's Spokane District in Washington assisted the Washington State Department of Transportation in creating new wetlands as mitigation for highway construction activities. Also, logging firms "buffer" riparian areas during timber harvesting.
- The Rock Springs District in Wyoming is taking riparian-wetland values into account in its evaluations of proposals to develop oil and gas.

APPENDIX IV: SPECIAL DESIGNATIONS

State	District	Special Designation	Project Area
Colorado	Montrose	ACEC	San Miguel River
Idaho	Salmon	RNA/ACEC	Seven Mile, Trail Creek
Idaho	Salmon	RNA/ACEC	East Fork, Summit Creek,Thousand Springs
N. Mexico	Las Cruces	ACEC	San Andres Canyon
Oregon	Lakeview	ACEC	Warner Wetlands
Oregon	Prineville	WSA	Lower Crooked River, Middle Deschutes River, South Fork Crooked River
Utah	Richfield	ACEC	Gandy Salt Marsh
Wash.	Spokane	ACEC	Lopez Island
Wash.	Spokane	QMA	Upper Crab Creek
Wyoming	Rock Springs	ACEC	Tri-State Monument
Wyoming	Rock Springs	ACEC	Steamboat Mountain

APPENDIX V: WATER RIGHTS ASSESSMENT STUDIES

- In Alaska, the BLM continued its documentation of instream flow needs to protect riparian-wetland values on Birch Creek, Delta River, Fortymile River, Unalakleet River and Beaver Creek.
- In Arizona, the agency continued gathering documentation to obtain certified water rights on Hot Springs; the Gila, San Francisco, Babocomari, Bill Williams and Virgin Rivers; Bonita, Redfield, Francis, Burro, Bass, Wildcat, Mescal, Apache, Wright and Cienega Creeks; and the Beaver Dam Wash.
- In Arizona, Nevada and Utah, the BLM initiated a study on the Virgin River to determine instream flows needed to maintain and improve riparian and aquatic resource values.
- In Colorado, riparian areas will be protected by an instream flow analysis on the Gunnison River, Dolores River, Mesa Creek, Monument Rock Creek and the West Fork of Powderhorn Creek in the Montrose District, the Arkansas River in the Canon City District and Cathedral Creek in the Craig District.
- In Idaho, the BLM worked with the Idaho Department of Fish and Game to gather instream flow data to protect riparian-wetland values on Wet Creek and Badger Creek in the Idaho Falls District and on Gamble Lake, French Creek, Partridge Creek, Big Canyon Creek and Lake Creek in the Coeur d'Alene District.
- Also in Idaho, the BLM completed the submission of more than 28,000 water rights applications in the Snake River Ajudication. Over 2,000 objections to water rights applications have been filed and are awaiting resolution. Most of the water rights applications are associated with riparian habitat.
- In Montana, the BLM secured over 200 water rights on water sources to protect riparian-wetland values.
- The BLM's Rio Puerco Resource Area in New Mexico conducted five water rights assessments on existing developments.
- The Battle Mountain District in Nevada contracted a survey of nine water sources as public water reserve areas.
- In Oregon and Washington, the BLM secured 460 water rights on streams, reservoirs and springs to protect riparian-wetland values and continued use of these water sources.
- In Utah, the BLM assessed opportunities under State law for developing and protecting water rights needed to support riparian-wetland values on 14 miles of Grassy Trail Creek and Mud Spring Wetland; 20 miles of Trachyte Creek; and two miles of Warm Springs Creek. Negotiations with private parties resulted in maintaining flows in Cedar Creek to protect riparian values.
- In Wyoming, water filings were submitted to the State Water Engineer's office on 220 reservoirs and 10 other water sources.

APPENDIX VI: KEY RIPARIAN-WETLAND ACQUISITIONS

Acquisition Name	District/State	Acres
Elliot-San Pedro River**	Safford/Arizona	120
Scouten-San Pedro River**	Safford/Arizona	36
Stratton-San Pedro River**	Safford/Arizona	21
Lachowicz-San Pedro River**	Safford/Arizona	278
Bernhard -San Pedro River**	Safford/Arizona	82
Hughes-San Pedro River**	Safford/Arizona	305
Amado-Bonita Creek**	Safford/Arizona	1,064
Cantua Creek*	Bakersfield/California	5,000
King Mountain*	Grand Junction/Colorado	160
Colorado River*	Grand Junction/Colorado	20
Deer Haven Ranch***	Canon City/Colorado	20
31 Mile Ranch*	Canon City/Colorado	20
Currant Creek Ranch*	Canon City/Colorado	10
Smith Property*	Boise/Idaho	56
Slaughter House Creek*	Shoshone/Idaho	2,100
Summit Creek/Wet Creek*	Idaho Falls/Idaho	50
South Fork Snake River**	Idaho Falls/Idaho	613
Gamble Lake*	Couer d'Alene/Idaho	48
Boater Parks*	Couer d'Alene/Idaho	40
Blackwell Island**	Couer d'Alene/Idaho	30
Pine Creek*	Couer d'Alene/Idaho	26
Salmon River*	Couer d'Alene/Idaho	22
Hard/Hazard Creek*	Couer d'Alene/Idaho	18
Captain John Creek**	Couer d'Alene/Idaho	80
Schnell Ranch*	Dickinson, N.D.	97
Soldier Meadows**	Winnemucca/Nevada	5,000
Upper Chama**	Albuquerque/New Mexico	640
Rio Bonita**	Roswell/New Mexico	429
Wood River**	Lakeview/Oregon	1,544
West Eugene**	Eugene/Oregon	200
Saunders*	Salt Lake City/Utah	174
USCPI/Chive*	Salt Lake City/Utah	70
Rocky Ford**	Spokane/Washington	720
Marlin Hollow**	Spokane/Washington	4,800
Lopez Island Wetland**	Spokane/Washington	20
Wilson Creek #2**	Spokane/Washington	900
Fishtrap Ranch**	Spokane/Washington	8,000
Seven Springs**	Spokane/Washington	4,000
Carter Mountain*	Worland/Wyoming	40

* Exchange
** Purchase
*** Donation

APPENDIX VII: WATERSHED MANAGEMENT EXAMPLES

- In Arizona, the Yuma District is working with the U.S. Fish and Wildlife Service, the U.S. Army Corp of Engineers and the Arizona Game and Fish to solve complex issues associated with the management of the Alamo Dam area. The Kingman Resource Area is working with all landowners on the Wright Creek watershed and within the Colorado Plateau ecosystem to solve riparian management issues. The Gila Resource Area is working with a citizen advisory group to develop management prescriptions for the Gila Box Riparian National Conservation Area.

- Looking at the entire watershed, the BLM in Colorado manages riparian-wetland areas through the cooperative efforts of grazing permittees and various Federal and State agencies. Committees were formed to resolve issues and make recommendations for the management of the Grape Creek, Badger Creek, Rio Grande River, Blue Creek, Grand Mesa Slopes and 4 Mile Creek areas.

- Working with grazing permittees, private landowners, the U.S. Forest Service and the Soil Conservation Service, the BLM's Burley, Salmon and Coeur d'Alene Districts in Idaho are conducting biological evaluations of land-use activities on 53 watersheds. Management and corrective actions are being implemented on a total watershed basis.

- In New Mexico, the BLM's District Offices are taking an ecosystem approach in managing riparian-wetland areas. For example, the Albuquerque District is focusing on water quality and local community welfare issues in its management of the Rio Puerco watershed. The Las Cruces District is managing the Rio Salado watershed and the Placitas Arroyo allotment by implementing riparian management practices on an entire ecosystem basis. Also, the Farmington District is managing the Pump Canyon watershed using a comprehensive approach.

- The Eugene District in Oregon is working with the Eugene Water and Electric Board to protect resource values on the Mckenzie River watershed. The BLM District is also cooperating with the City of Eugene, the Lane County Council of Governments, the Lane County Board of Commissioners and The Nature Conservancy to resolve wetland management issues in the West Eugene Wetlands area.

- The BLM's Lakeview District in Oregon has formed an interagency group to develop a long-term management plan for the Wood River Ranch area. The plan is intended to resolve several riparian-wetland management issues in the Klamath Basin.

- The Salem District in Oregon is taking a comprehensive approach in implementing the Baker Creek Restoration and Enhancement project.

- In Oregon, the BLM's Prineville District is working with all affected landowners, individuals and conservation groups in the management of the Buck Hollow, Upper Prineville Reservoir and Bridge Creek watersheds.

- The BLM's Burns (Oregon) District worked with a grazing permittee on the Alder Creek watershed to defer livestock use for three years. The District Office also with the permittees in the Pueblo Mountains area to modify grazing practices in order to restore riparian areas.

- In cooperation with the U.S. Forest Service, the Rocky Mountain Elk Foundation, the Nevada Department of Wildlife and other parties, the BLM's Elko (Nevada) District developed ecosystem management objectives for the Bruneau River Habitat Management Plan. Also, the BLM is working with the Carter Ranch in the Battle Mountain District in managing several watersheds in the Toiyabe Mountain Range on an ecosystem basis.

- The Richfield Utah District continues to implement a coordinated resource management plan on the Otter Creek Watershed that involves the cooperation of various Federal, State and local agencies and private landowners. The plan promotes the restoration and protection of water quality in critical riparian and aquatic habitats.

- Permittees in the Grand Resource Area of the Moab (Utah) District agreed to restrict livestock use along 10 miles of the Delores River and Beaver Creek in order to restore riparian habitats to proper functioning condition.

- In Wyoming, the BLM's Lander Resource Area implemented an allotment management plan in which permittees agreed to limit livestock use. The Great Divide Resource Area implemented the Upper Muddy Creek Watershed project to improve livestock management and road construction practices.

APPENDIX VIII: TRAINING SESSIONS AND WORKSHOPS

- The Grand Junction District in Colorado conducted an introductory course on a comprehensive approach to resource management, with emphasis on riparian-wetland areas.
- The BLM co-sponsored the 5th annual conference of the Colorado Riparian Association, which was held in Boulder, Colorado.
- The Boise District in Idaho sponsored a wetland classification and inventory training session in cooperation with the U.S. Fish and Wildlife Service to improve technical skills and knowledge of National Wetland inventory maps.
- The BLM Idaho State Office co-sponsored the Second Annual Water Quality Monitoring Workshop in cooperation with the Idaho Department of Water Resources and the U.S. Forest Service. The workshop focused on water quality monitoring of riparian-wetland areas.
- In cooperation with the BLM's Montana State Office, BLM staff in Idaho and Wyoming participated in a one-day course on the assessment of the functioning condition of riparian stream segments of Clover Creek in Idaho.
- In Montana, the BLM conducted several field training sessions in cooperation with the Montana Riparian Association, focusing on recently developed riparian-wetland inventory procedures.
- In Nevada, the BLM and the University of Nevada presented two riparian-wetland training courses to improve skills in inventory and classification processes.
- The BLM conducted its Sixth Annual Riparian-Wetland Management Workshop in Albuquerque, New Mexico, which addressed both riparian and watershed management activities. A strategy was developed for expanding the comprehensive approach to riparian-wetland management.
- The Prineville District in Oregon is working with the Confederated Tribes of the Warm Springs Indian Reservation, the Bureau of Indian Affairs and the Oregon State Extension Service to provide workshops on riparian-wetland management.
- In cooperation with the U.S. Forest Service, the BLM in Utah carried out training in two management areas in an effort to coordinate and standardize inventory and monitoring procedures.
- The agency's Wyoming offices, in cooperation with the Wyoming Riparian Association and Stockgrowers Association, provided information on BLM's riparian management efforts in southcentral Wyoming at six regional workshops.

APPENDIX IX: MAJOR OUTREACH EFFORTS

State	Office	Outreach Effort (Category/Item)
Arizona	Phoenix, Yuma, Safford	Presentations -- Riparian awareness for students
Arizona	Tucson	Field Day -- "Empire-Cienega Ranch Earth Day"
California	Barstow	Conference -- "Hot Desert Vegetation Management Symposium"
California	Susanville	Fort Sage School District -- "Adopt-a-Watershed" program
California	Susanville	Presentation -- National Association of State Wetlands Managers meeting
California	Susanville	Outdoor Education -- Lassen County Youth Camp
Colorado	Craig	Outdoor Classroom -- Riparian awareness for students and Boy Scouts
Colorado	Grand Junction	Field Trips -- Riparian awareness for industry and students
Colorado	Canon City	Exhibit -- "Riparian Management"
Colorado	Canon City	Presentation -- Holistic Watershed Management for students
Colorado	Alamosa	Field Tour -- Wetland awareness for students
Colorado	Canon City	Presentations -- "Holistic Resource Management Approach" for private landowners
Colorado	Montrose	Field Tour -- "Restoration Ecology" for Rocky Mountain Biological Laboratory on Cabin Creek and Alder Creek
Idaho	Shoshone, Burley, Idaho Falls	Presentations -- Riparian awareness for agencies and interest groups
Idaho	Idaho Falls	Tour -- "King Creek" riparian demonstration
Idaho	Idaho Falls	Field Day -- Riparian awareness for students
Idaho	Boise, Idaho Falls	Tour -- Riparian awareness
Montana	Statewide	Tours -- Riparian-wetland awareness for interest groups
Montana	Dillon	Presentations -- "Workshop on Western Wetlands and Riparian Areas" at Snowbird, Utah
New Mexico	Albuquerque	Presentations -- "Rio Puerco Watershed" initiative
New Mexico	Roswell	Field Day -- "Overflow Wetlands" restoration with students
New Mexico	Roswell	Presentations -- "Fort Stanton and Overflow Wetlands" environmental awareness to students
New Mexico	Farmington	Presentation -- "Pump Canyon" riparian awareness
Nevada	Winnemucca	Field Day -- "Kids Fishing Day" on Sonoma Creek
Nevada	Battle Mountain	Field Day -- "Environmental Education" on Mill Creek
Nevada	Elko	Field Day -- Riparian awareness for students on Susie Creek
Oregon	Salem	Tour -- "East Creek Riparian Underplanting"
Oregon	Lakeview	Career Camp -- Riparian area and watershed management awareness
Oregon	Eugene	Tours -- "West Eugene Wetlands"
Oregon	Lakeview	Tours -- "Wood River Ranch" management planning
Oregon	Prineville	Tours -- Bear Creek, Camp Creek and Bridge Creek riparian awareness
Oregon	Prineville	Presentations -- Colorado and Oregon Soil and Water Conservation; California and Oregon- U.S. Environmental Protection Agency Workshops
Oregon	Prineville	Field Day -- Watershed function for teachers
Oregon	Prineville	Field Days -- Riparian awareness for students on Camp and Bridge Creeks
Oregon	Burns	Tour -- "Stinking Water Ecosystem" riparian awareness

State	Office	Outreach Effort (Category/Item)
Utah	Salt Lake City	Presentation -- *Western Beef Producer* magazine
Utah	Moab	Tour -- Russia and Kazakhstan agricultural researchers
Utah	Richfield	Special Emphasis Day -- Otter Creek stream stabilization awareness
Washington	Spokane	Tours -- Fishtrap Ranch, Lakeview, Douglas and Crab Creeks, Lopez Island and Yakima River
Washington	Spokane	Presentations -- Palouse Riparian Workshop, Washington Wetlands Workshop and State Stream Enhancement Workshop
Wyoming	Statewide	Presentation -- Western Division of the American Fisheries Society
Wyoming	Lander	Field Day/Camp -- Riparian awareness for students
Wyoming	Rawlins	Field Day -- Environmental awareness for students
Wyoming	Rawlins	Presentations -- "Sun Stewardship Program"
Wyoming	Rock Springs	Exhibit -- "Wildlife Resources Day"

APPENDIX X: MAJOR FUNDING AND VOLUNTEER EFFORTS

State	Office	Project Area(s)	Funding/Volunteer Source
Arizona	Tucson	Empire-Cienega	Students
Arizona	Safford	San Pedro National Conservation Area	Friends of San Pedro
California	Hollister	Griswold Creek	County inmates
California	Arcata	Lower East Fork of Honeydew Creek	Mattole Restoration Council
California	Alturas	Fitzhugh Creek	Wildlife Conservation Board, National Fish and Wildlife Foundation
California	El Centro	Dos Palmos Reserve	County inmates
California	Hollister	Silver Creek	Boy Scouts
Colorado	Montrose	San Miguel River	Youth Environmental Services
Colorado	Grand Junction	Big Dominquez Creek	Boy Scouts
Colorado	Grand Junction	Trapper Creek	Trout Unlimited
New Mexico	Albuquerque	Rio Puerco Watershed	Southwest Indian Polytecnect Institute
New Mexico	Albuquerque	Rio Grande	San de Cristo Fly Fishermen
New Mexico	Socorro	Rio Salado	Tree New Mexico, Boy Scouts
New Mexico	Las Cruces	Horse Mountain	Wild Turkey Foundation
New Mexico	Las Cruces	Placitas Arroyo	Quail Unlimited
New Mexico	Roswell	Rio Bonito	Mesilla Valley Fly Fishermen
New Mexico	Carlsbad	Playa Lakes	Quail Unlimited-Lea County, Hobbs Chapter of National Wildlife Federation
New Mexico	Farmington	Pump Canyon	San Juan Bowhunters, grazing permittee, Meridian Oil Company, New Mexico Department of Game and Fish
Nevada	Elko	Susie Creek	Students
Nevada	Elko	Beaver Creek	Nevada Mining Association
Nevada	Elko	Rattlesnake Spring	Public
Nevada	Carson City	Eldorado Canyon	Student Conservation Association
Nevada	Las Vegas	Red Rock Canyon	Red Rock Audubon Society
Oregon	Lakeview	Hayden Creek	Boy Scouts
Oregon	Coos Bay	Johns Creek	High school students
Oregon	Coos Bay	Paradise Creek/ West Fork Smith River	High school biology students
Oregon	Lakeview	Lake Abert	Oregon Department of Fish and Wildlife
Oregon	Lakeview	Warner Wetlands	Eugene Chapter-Izaak Walton League, North American Wetlands Conservation Fund

State	Office	Project Area(s)	Funding/Volunteer Source
Oregon	Medford	Jenny Creek	U.S. Fish and Wildlife Service, Izaak Walton League, South Medford High School
Oregon	Medford	Sardine and Evans Creeks	South Medford High School
Oregon	Salem	Baker Creek	Oregon State Watershed Enhancement Board, members of public
Oregon	Prineville	Bridge Creek	Trout Unlimited
Oregon	Prineville	Ten Mile Creek	Oregon Department of Fish and Wildlife
Oregon	Burns	Wickiup Creek	National Fish and Wildlife Foundation
Oregon	Burns	Alder Creek	Rocky Mountain Elk Foundation
Oregon	Burns	Grassy Butte	Ducks Unlimited, Oregon Department of Fish and Wildlife
Utah	Vernal	Sweetwater Creek	Boy Scouts
Utah	Vernal	Dry Fork Canyon	Grazing permittees
Utah	Richfield	Cow Seep	Grazing permittees
Utah	Cedar City	Virgin River	Public interests
Utah	Salt Lake City	Salt Wells Wetland	Utah State University students
Washington	Spokane	Crab Creek, Fishtrap Ranch	Inland Northwest Wildlife Council, Ducks Unlimited, The Audubon Society, Pheasants Forever
Washington	Spokane	Fishtrap Ranch	Cheney High School, Eastern Washington University
Washington	Spokane	Lopez Island	Friends of San Juan, San Juan Preservation Trust
Washington	Spokane	Douglas Creek	Boy Scouts, The Audubon Society
Wyoming	Cody	Loch Katrine	Cody High School
Wyoming	Cody	Cody Canal	Wyoming Game and Fish Department
Wyoming	Worland	Wardell Reservoir	Worland Boys School
Wyoming	Worland	RAIDS Data Base	Wyoming Vocational Rehab Program
Wyoming	Worland	Beaver Creek	Rocky Mountain Elk Foundation
Wyoming	Casper	Bolton Creek	Westwood Elementary School

APPENDIX XI: MAJOR RIPARIAN-WETLAND PARTNERSHIPS

State	Office	Project Area	Partnership
California	Bishop	Owens Valley	California Department of Fish and Game, Wildlife Conservation Board
Colorado	State	Statewide	The Nature Conservancy
Colorado	Grand Junction	Trapper Creek	Trout Unlimited
Colorado	Grand Junction	Devils Canyon	Colorado Division of Wildlife
Idaho	Idaho Falls	Henry's Fork	Ducks Unlimited
Idaho	Idaho Falls	South Fork Snake River	Nature Conservancy, Trout Unlimited
Idaho	Boise	Trout Springs, Rockville Spring, Hartzell Creek, Wolf Creek, Trail Creek	Idaho Bird Hunters
Idaho	Boise	Trueblood Wildlife	Ducks Unlimited
Idaho	Coeur d'Alene	Coeur d'Alene River	U.S. Forest Service, National Fish and Wildlife Foundation
Idaho	Coeur d'Alene	Clearwater River, McComas Meadows	U.S. Forest Service
Montana	Statewide	Statewide	Montana Riparian Association Education Committee
New Mexico	Las Cruces	Placitas Arroyo	Quail Unlimited
New Mexico	Las Cruces	Rio Salado	Socorro County Farm and Ranch, Tree New Mexico, U.S. Fish and Wildlife Service, Bureau of Reclamation, Boy Scouts
New Mexico	Las Cruces	Horse Mountain	Wild Turkey Federation
New Mexico	Carlsbad	Playa Lakes	New Mexico Potash, International Minerals Corp., Soil Conservation Service New Mexico Environmental Department, U.S. Fish and Wildlife Service
Nevada	Elko	Susie Creek	Nevada Department of Wildlife
Nevada	Elko	Beaver Creek, Chimney Creek	Nevada Mining Association
Nevada	Elko	Bruneau River	National Fish and Wildlife Foundation, Rocky Mountain Elk Foundation
Nevada	Elko	Marys River	Trout Unlimited, Newmont Gold Company, Nevada Department of Wildlife
Nevada	Battle Mountain	Railroad Valley	Round Mountain Gold Company
Oregon	Lakeview	Agency Lake, Upper Klamath Lake	American Land Conservancy

State	Office	Project Area	Partnership
Oregon	Lakeview	Summer Lake	Oregon Department of Fish and Wildlife, Ducks Unlimited, Oregon Waterfowl and Wetlands Association, Farmers Home Administration, Agricultural Stabilization and Conservation Service, private landowners
Oregon	Eugene	West Eugene Wetlands	The Nature Conservancy, Lane County Council of Governments, City of Eugene, U.S. Environmental Protection Agency
Oregon	Prineville	Upper Prineville Reservoir	Oregon Department of Fish and Wildlife, Bureau of Reclamation, Oregon State Extension Service, U.S. Forest Service
Oregon	Prineville	Sutton Mountain	Oregon Department of Fish and Wildlife, Wildlife, Oregon State Extension Service, private landowners
Oregon	Prineville	Buck Hollow	Oregon Department of Fish and Wildlife, Soil Conservation Service, Crooked County Soil and Water Conservation District, Agricultural Stabilization and Conservation Service, private landowners, private groups
Utah	Salt Lake City	Blue Springs	Utah Division of Wildlife Resources
Utah	Salt Lake City	Patterson Creek	Box Elder County Wildlife Federation
Washington	Spokane	Crab Creek	Ducks Unlimited, Pheasants Forever, Odessa Environmental Defense Council, Washington State University
Washington	Spokane	Fishtrap Ranch	Inland Northwest Wildlife Council, Ducks Unlimited, Pheasants Forever, Eastern Washington University, Rocky Mountain Elk Foundation
Washington	Spokane	Lopez Island	San Juan Preservation Trust, Friends of San Juan
Wyoming	Lander	Diamond Springs	Wind River Chapter of Trout Unlimited, Wyoming Game and Fish Department, The Nature Conservancy, Soil Conservation Service
Wyoming	Rock Springs	La Barge Creek Watershed, Thomas Fork	U.S. Forest Service, Wyoming Game and Fish Department, Trout Unlimited
Wyoming	Rock Springs	Ten Mile Marsh	Medicine Bow Wildlife
Wyoming	Rock Springs	Wheat Creek Meadows	Ducks Unlimited
Wyoming	Rock Springs	Currant Creek, Little Mountain Watershed	Wyoming Game and Fish Department, Trout Unlimited, Rocky Mountain Elk Foundation, Sweetwater Wildlife Federation, grazing permittees

APPENDIX XII: COORDINATED MANAGEMENT EFFORTS

State	Office	Project Area	Project or Initiative
Arizona	Yuma	Bill Williams River	Alamo Dam
Arizona	Yuma	Wright Creek	Colorado Plateau Ecosystem
California	Redding	Trinity River	Trinity River Task Force
California	State	Statewide	Wetlands Habitat Strategy
Colorado	Grand Junction	Trapper Creek	*Bring Back the Natives*
Colorado	Montrose	North Beaver Creek	*Bring Back the Natives*
Idaho, Oregon/ Wash.	Multi-state	Columbia/Snake River	PACFISH and Salmon Summit
Idaho	State	Statewide	Designated Stream Segments of Concern
Idaho	Burley	Walcott Isolated	Riparian Habitat Restoration Tract
Montana	State	Statewide	Develop riparian-wetland best management practices
Montana	Garnet	Blackfoot River	*Bring Back the Natives*
New Mexico	Las Cruces	Coyote Canyon	Riparian Habitat Restoration
Nevada	Elko	Bruneau River	*Bring Back the Natives*
Nevada	Elko	Marys River	*Bring Back the Natives*
Oregon	Burns	Wickiup Creek	*Bring Back the Natives*
Utah	Vernal	Cripple Cowboy	Book Cliffs Ranch
Washington	Spokane	Statewide	Washington State Wetland Enhancement
Washington	Spokane	Lincoln and Grant Counties	Columbia River Mitigation
Washington	Spokane	Palouse Prairie	"Trees on the Palouse" Riparian Enhancement
Wyoming	Rawlins	Littlefield, Muddy Creek	*Bring Back the Natives*
Wyoming	Rock Springs	Little Mountain Watershed, La Barge Creek	*Bring Back the Natives*

APPENDIX XIII: INTERDISCIPLINARY COORDINATION

- BLM staffers in Arizona, Nevada and Utah are working as an interdisciplinary team to develop instream flow recommendations for protecting riparian and aquatic resource values on the Virgin River.
- The Gila Resource Area in Arizona is using an interdisciplinary team in completing the Gila Box Riparian National Conservation Area Management Plan. In addition, the Havasu Resource Area is drawing on local, State and Federal expertise in an interagency Riparian Ecological Site Inventory effort on the Bill Williams River.
- The BLM's Montrose District in Colorado is participating in interagency planning efforts that affect Dry Creek and Cross Canyon. The other agencies are the Colorado State Board of Land Commissioners, the Colorado Division of Wildlife, the Colorado State University Extension Service, the Soil Conservation Service and the San Miguel Basin Soil Conservation Board.
- The BLM's Canon City District, the Colorado Division of Wildlife, Conejos County and Costilla County are jointly funding the construction of a fence to protect portions of the Rio Grande River.
- Under a cooperative agreement, the BLM's Grand Junction District and Eagle County (Colorado) officials are monitoring water quality on tributaries of the Eagle River.
- Also in Colorado, the BLM's Grand Junction District is cooperating with the Bureau of Reclamation and the Colorado Division of Wildlife to restore agriculture-related, man-made wetlands in the Grand Valley. Under a cooperative agreement, BLM property in the Horsethief Wildlife Area was transferred to the Colorado Division of Wildlife for the protection of wetlands.
- In Idaho, the Salmon and Coeur d'Alene Districts are taking an interdisciplinary approach in making biological evaluations relating to the Federal listing of the Snake River salmon. The districts are also refining management strategies in order to enhance riparian-stream habitat.
- The Lewistown District in Montana, the U.S. Fish and Wildlife Service and Montana Power Company are engaged in research to determine the effects of dams on riparian regeneration in the Upper Missouri Wild and Scenic River area. The Lewistown District is also cooperating with the U.S. Environmental Protection Agency and the Montana Riparian Association to automate the riparian resource data base in the Upper Missouri Wild and Scenic River area.
- The BLM's Las Cruces District in New Mexico is working with the Otero County Road Department to reroute a road in a riparian area. The district is also participating in the development of the Sustainable Biosphere Initiative for the Rio Grande Valley.
- The Carson City District in Nevada cooperated with the Soil Conservation Service to complete an ecological site inventory in the Red and Burbank Canyon areas.
- In Oregon, the Lakeview District is coordinating with the Oregon Department of Fish and Wildlife, Pacific Power, the Weyerhaeuser Company, the U.S. Fish and Wildlife Service, the U.S. Forest Service and the District Grazing Advisory Board to formulate riparian-wetland area management alternatives. The Prineville District is working with the Prineville Ranger District of the Ochoco National Forest to establish riparian-wetland management objectives for jointly-managed watershed areas.
- In Washington, the Spokane District participated with the U.S. Forest Service and the U.S. Fish and Wildlife Service in the development of riparian management guidelines for eastern Washington forest ecosystems. The district assisted the Soil Conservation Service and the Washington Department of Natural Resources in developing a riparian classification and inventory system. The district is coordinating with the U.S. Geological Survey in monitoring water quality in the Crab Creek management area. Also, the district worked with the U.S. Forest Service to resolve PACFISH and Salmon Summit issues.
- The Rawlins (Wyoming) District is taking an interdisciplinary approach as it implements 18 land management plans. The district is working with private landowners, grazing permittees, recreationists, wild horse advocacy groups, the Soil Conservation Service, the U.S. Forest Service, the Wyoming Game and Fish Department, the University of Wyoming, Soil and Water Conservation Districts, the Bureau of Indian Affairs and the Wyoming Wildlife Federation.
- Also in Wyoming, the BLM coordinated with the U.S. Fish and Wildlife Service in carrying out water quality monitoring studies. The agency also worked with Ducks Unlimited in designing waterfowl habitat enhancement projects in the Loch Katrine area.

The BLM coordinates its riparian-wetland management efforts with the U.S. Forest Service, the Army Corps of Engineers, the Soil Conservation Service and other appropriate Federal and State agencies. Outstanding cooperative efforts are noted below:

- The BLM and the Soil Conservation Service in Alaska, under an interagency agreement, are working on a soils and riparian vegetation inventory in the Gulkana Wild and Scenic River corridor.
- In Arizona, the BLM and the Soil Conservation Service are working to test and develop plant materials for rehabilitating riparian areas of the Southwest.
- Also in Arizona, the BLM's Safford District has entered into the Coordinated Resource Management process. Under this process, interest groups and agencies work to resolve riparian-related issues on the San Pedro River Watershed.
- The Eagle Lake Resource Area in California is working with private landowners, the University of California and the Soil Conservation Service to protect the Middle Fork of Buffalo Creek.
- As part of the Upper Gunnison Basin Habitat Partnership Program, the BLM's Gunnison Resource Area in Colorado undertook an ecological site inventory in cooperation with the U.S. Forest Service and the Colorado Division of Wildlife.
- Also in Colorado, the Grand Junction District is cooperating with the Bureau of Reclamation in developing measures to stop riparian-wetland losses in the 6 & 50 Reservoir and Hunter Pond areas. Through a cooperative agreement, management of public lands in the Horsethief Wildlife Area was transferred to the Colorado Division of Wildlife for wetland protection.
- In Idaho, the BLM is working with the National Marine Fisheries Service and the U.S. Forest Service on guidelines for preparing biological assessments of anadromous fish habitat. The BLM and the Forest Service are also undertaking PACFISH, a long-term management strategy for restoring declining fish stocks in the Pacific Northwest. In addition, the BLM is coordinating with the U.S. Fish and Wildlife Service on a recovery plan for the endangered snail species along the Snake River and Bruneau Hot Springs areas.
- In conjunction with the Forest Service, the Soil Conservation Service and Idaho's Division of Environmental Quality, the BLM's Burley and Coeur D'Alene (Idaho) Districts are developing a comprehensive water quality monitoring plan on selected "Designated Stream Segments of Concern."
- The Albuquerque District in New Mexico is working with the Army Corp of Engineers and the New Mexico Department of Transportation on stream stabilization projects along the Rio Salado and Rio Puerco rivers.
- The BLM's Elko (Nevada) District is cooperating with the Nevada Department of Wildlife in the monitoring of wildlife species abundance and diversity.
- The BLM's Lakeview District in Oregon, the U.S. Fish and Wildlife Service and the Bureau of Reclamation are coordinating their efforts to restore wetlands and enhance water quality in the north area of Agency Lake.
- In Utah, the BLM is coordinating with Utah's Division of Wildlife Resources, the University of Utah and Brigham Young University in the assessment of riparian-wetland habitat.
- Also in Utah, the BLM is working with other agencies, interest groups, universities and water conservancy personnel to develop plans for mitigating the impact of the Central Utah (water) Project on riparian areas.
- The Vernal (Utah) District is coordinating with Utah's Division of Natural Resources, The Nature Conservancy and the Rocky Mountain Elk Foundation in developing the Book Cliffs initiative to secure key riparian-wetland areas. Also, the Vernal District is working with the Army Corps of Engineers, the U.S. Forest Service and with State and local agencies to restore stream and riparian areas along Ashley Creek, a tributary of the Green River.
- In conjunction with the Bonneville Power Administration, the Washington Department of Wildlife, the U.S. Fish and Wildlife Service, the National Park Service and Lincoln and Grant Counties, the Spokane (Washington) District is establishing shrub-steppe and riparian management techniques in the Columbia River area.
- To develop a management plan for the East Fork Management Area, the Lander Resource Area in the Rawlins (Wyoming) District signed a Memorandum of Understanding with the U.S. Forest Service, the Wyoming Game and Fish Department, the U.S. Fish and Wildlife Service, the Bureau of Indian Affairs, the Shoshone Indian Tribe and the Arapahoe Indian Tribe.
- Little Snake River Conservation District took the lead in promoting interagency coordination for

management of the BLM's Great Divide Resource Area in the Wyoming Muddy Creek Riparian Showcase Area. The coordinating parties are the BLM, the Soil Conservation Service, the Carbon County Extension Service, the Wyoming Game and Fish Department and private landowners.

- The BLM's Rock Springs District in Wyoming is working with the U.S. Forest Service to develop the Upper Green River Habitat Management Plan, which involves wetland restoration and waterfowl habitat improvement projects.

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